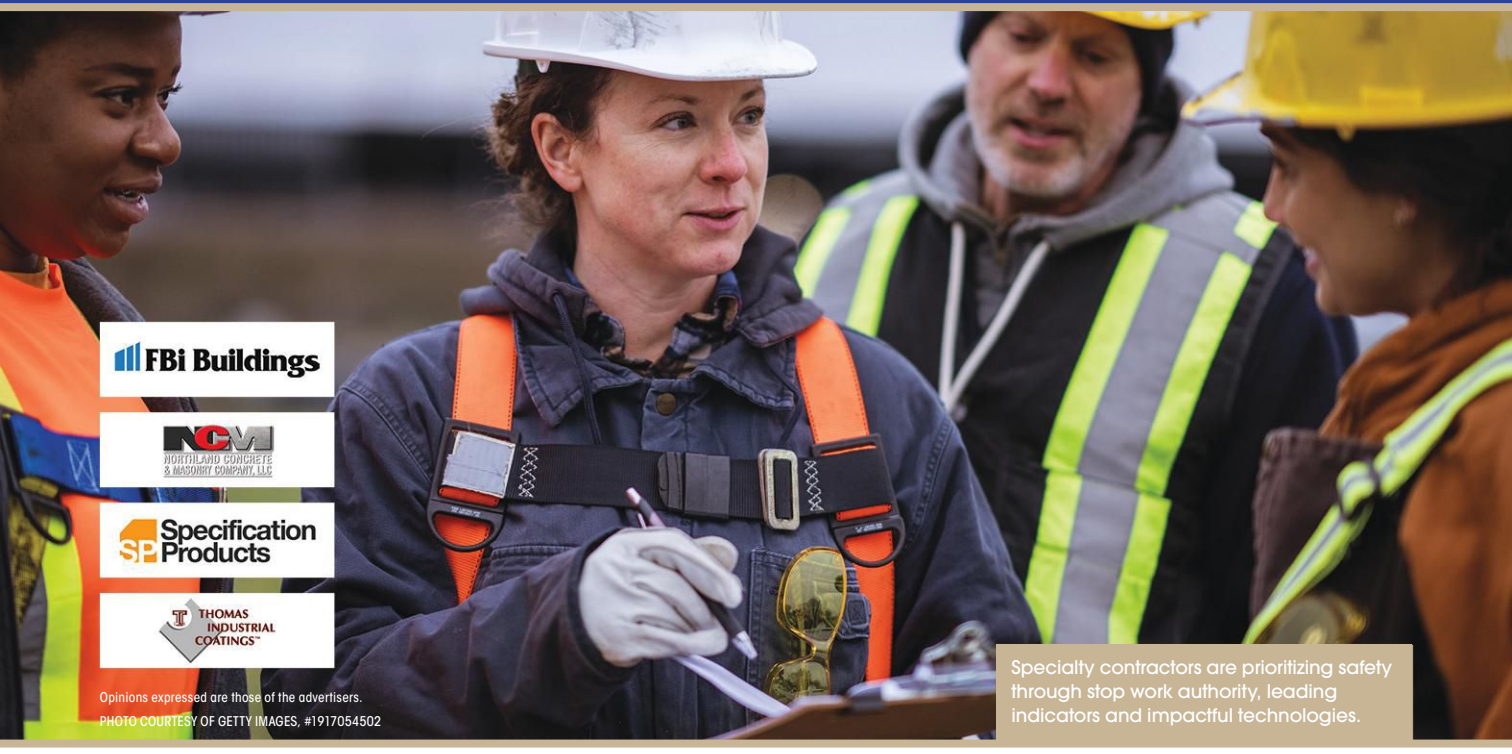

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Specialty contractors are prioritizing safety through stop work authority, leading indicators and impactful technologies.

It Starts With Safety

Midwest specialty contractors understand that safety isn't a buzzword

By Jennie Morton

The Midwest is known for its harsh weather and demanding seasons, making protecting employees an ever-present concern. Three award-winning safety leaders from companies in the region, Northland Concrete & Masonry, Thomas Industrial Coatings and FBi Buildings, share their experiences and insights on best practices, current technologies and innovative ways to build and reinforce a workplace culture where safety is top of mind for everyone.

What are the foundational attitudes of your safety culture?

Andy Runzi, EEO Officer, Thomas Industrial Coatings: From the beginning of our hiring process, we ask what safety means and looks like to each applicant. During orientation, we then emphasize that everyone has stop work authority. We know our safety culture is only as good as the decisions made in a given moment, so we empower our team to shut down if something's not right.

Don Thomas, President, Thomas Industrial Coatings: Even when there's been a near miss, we brief the entire company so everyone is aware. Nothing is held back. We'll also immediately review and update procedures within days. This is to demonstrate that our commitment to safety isn't a "gotcha" moment, but making sure everyone has a voice.

Dave Underwood, EHS Director, FBi Buildings: Our perspective is that safety has to be more than a priority—it's a value. We work to ingrain a safety mindset at all levels of the organization so it's at the forefront of everyone's minds.

Dan Stephenson, Safety Director, Northland Concrete & Masonry: We have always been transparent that skimping on safety ultimately costs money. It's better to bid the work without needing to factor in unnecessary injuries and work comp claims. Taking shortcuts only leads to someone getting hurt.

Are there any innovative elements to your safety program?

Runzi: We analyze our data each year for safety trends. By focusing on proactively eliminating hazards rather than responding to incidents, we've

subsequently seen our TRIR and EMR ratings remain low. We even utilize a third party to complete unannounced safety inspections, getting an unbiased review of our processes and sound advice on how to better our program.

Thomas: We also make sure our people leave orientation with the right PPE. Gloves are a big one for us. We did a demonstration where we took different types of gloves and exposed them to a sandblasting stream to show which ones actually held up. Crews could see how that generic pair from a gas station got shredded and why it's important to wear the ones we provide.

Jon Lewis, Safety Director, Thomas Industrial Coatings: We also have a three-page checklist on our company app. If there's anything that's not checked off, we don't start sandblasting operations until it's addressed.

Underwood: We're big on communication and multiple levels of training, like weekly toolbox talks and monthly webinars. We also get feedback on new equipment. I even track tool damage—it could be an indication of misuse or inadequate training. It's a good indication of how things are being used and the attitudes of people using them.

Stephenson: We also have a mix of incentives, stop work authority and safety training, but what really sets us apart is that we're honest and open with our employees. Our safety program is there to protect them, not police them. I want to work with our field employees to make sure they are safe without handcuffing production. When you get buy-in, enforcement isn't an issue.

> **"We work to ingrain a safety mindset at all levels of the organization."**
>
> *— Dave Underwood, EHS Director, FBi Buildings*

What technologies are supporting your safety efforts?

Stephenson: We were among the first to invest in HEPA vac systems when the new silica standards were introduced. We then converted our machines to LP to reduce carbon monoxide emissions.

Lewis: Driving is a big risk because it's one our crews face every single day. So we added front- and driver-facing cameras to over 100 vehicles about 1.5 years ago. It wasn't punitive or reactive, but to help emphasize that safe driving isn't an afterthought. Combined with our defensive driving classes, we've seen a 50% reduction rate in the number of alerts for distracted driving.

Underwood: We specifically created the QLFTY system because falls are the number one cause of fatalities in the construction industry. Protecting people isn't just about OSHA compliance—it's about sending people home in the same condition they arrived at work. ◆

Safety Is Essential to Hiring and Retention

Safety, earning contracts and scopes of work executed are vital components of the success of a construction company, but the people completing the work on a project will always be just as important. Don Thomas recognized this early in his career when he started Thomas Industrial Coatings (TIC) in 1991, especially since he began in the field. Investing in people and building careers has always been a foundational component of the company. As a result, there are multiple second-generation industrial painters who have spent their entire careers at TIC.

Success starts with the hiring process and getting the right people on the team. During the initial interview and prior to discussing an individual's skill set, safety is discussed. The applicant is asked what safety means to them and what it looks like in the field. They must provide an OSHA Construction 30 certification to qualify for a position. It is important for the applicant to be clear on company expectations should they be afforded an opportunity.

After a position is offered, a two-day orientation is set up that includes medical testing and onboarding. The applicant spends the second day with a member of the safety department, quality control and multiple members of the operations team. During the orientation, current certifications are filed and a plan is discussed for the individual to obtain more training to further their career. Earning certifications such as an AMPP CAS, C3, and Coatings Inspectors benefits the individual and the company.

> **Success starts with the hiring process and getting the right people on the team.**

At the conclusion of orientation, the newest member of our team is issued all necessary PPE as well as a bucket of tools in the same fashion as Don Thomas used when he was in the field. 30-day reviews take place after the orientation to ensure they are getting acclimated to our processes.

This standard of hiring has proven to benefit TIC not only in employee retention but recruitment as well. When a person is successful and has an opportunity to grow in their field, they often share their experiences with others, creating an interest in TIC in turn.

At Thomas Industrial Coatings, we recognize success is not a destination, but a never-ending process and people are our biggest asset. Visit www.thomasindcoatings.com to discover more. ◆

NCM
NORTHLAND CONCRETE
& MASONRY COMPANY, LLC

Since 1963, Northland Concrete & Masonry has been a leader in precision-built construction, backed by a workforce of over 400 skilled professionals. We consistently deliver accurate budgets, dependable schedules, and exceptional results across every project.

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Carbon reducing PRODUCT

E5® Nano Silica is the planet's answer for sustainable concrete.

The most sustainable concrete is durable concrete. **E5® Nano Silica** substantially improves the durability, and extends the service life, of concrete by controlling water, ensuring a proper cure and filling voids within the concrete's naturally porous structure. **E5® Nano Silica** products also enable a reduction of cement and supplementary cementitious materials (SCMs) in concrete mixes and eliminate all materials used for traditional wet curing.

E5 INTERNAL CURE

E5® Internal Cure® eliminates all topical curing compounds and reduces or eliminates the need for other topical chemicals as well, including densifiers and sealers. Additionally, it eliminates the need for the use of scarce water resources and other materials (e.g., curing blankets, burlap, visqueen) for traditional wet curing and the related transportation costs and emissions.

When used in combination, E5® Internal Cure® and E5® Liquid Fly Ash® have reduced as much as 83 lbs. of CO2 per cubic yard of concrete poured.

E5 LIQUID FLY ASH

E5® Liquid Fly Ash® is a highly efficient SCM that can replace up to 15% of cementitious material in concrete. As compared to other SCMs, such as traditional fly ash, **E5® Liquid Fly Ash®** also requires only a small fraction (approximately 1/28) of the hauling and attendant emissions.

For every 25,000 yards of traditional concrete mix designed with E5® Internal Cure® and E5® Liquid Fly Ash® 8%-10% cement reduction can be achieved totaling 1,000,000 +/- pounds of cement.

Free Sample Products
Local Sales Training
Mix Design Optimization

E5® Incorporated

How BIM Supports Concrete Projects

Specialty contractors like Northland Concrete & Masonry Company, LLC (NCM) are leveraging BIM to improve projects. Through modeling, they are resolving on-site overlooks, constraints and conflicts before they ever become a reality in the field. NCM has four full-time drafters addressing these challenges ahead of construction.

Though once the primary domain of architecture firms, BIM has been widely adopted by specialty contractors as well. NCM has been using it for almost 15 years, starting with one modeler and growing into a team.

"The more complex and complicated the project is, the more we use BIM to support it," says Trent Schieffer, NCM Project Manager. "We want to flush out constructability constraints long before it's time for execution in the field. By working towards resolution early, there are fewer problems on a job that could cause a delay or stop in work."

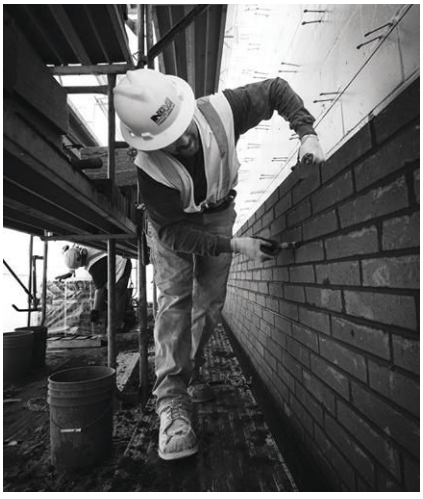
NCM mainly uses BIM for clash detection, such as:

- Floor slope studies
- Slab profiles
- Proper drainage elevations
- Door height coordination
- Civil grades for brick ledge heights
- Coordination with other trades (steel, precast, MEP)
- ADA slope compliance checks
- Post-tension, stud rail and embed coordination

With its ability to visualize coursing and geometry, BIM also allows NCM to tighten up any construction tolerances for concrete or masonry scopes. The end result is more precision-based construction, which ultimately helps avoid costly rework and associated labor. It even improves estimating and procurement, such as providing a more exact count for masonry units or volume of concrete on a complex pour.

The software also maximizes a number of workflows. Design teams like BIM because it helps remove the burden of sketching every detail. It's also a good collaboration tool between other trades and the GC on a project, especially since information can be exported to different devices directly in the field.

Owners appreciate BIM from a schedule standpoint. It helps NCM understand where they can save time or be flexible with their process to accommodate the GC's schedule. "NCM's constant innovative drive to improve the process results in higher quality and shorter durations as each project passes," says Rob Stenger, Senior Project Manager, RJ Ryan Construction. "They resolve issues before you are even aware of them and are a proven team player." ◆



Northland Concrete & Masonry uses BIM to drive precision and efficiency throughout their projects.

PHOTO COURTESY OF NCM

FBi Buildings Lifts to New Heights

The QLYFT building system was developed so field employees can work in the safest atmosphere possible.

PHOTO COURTESY OF FBI BUILDINGS

Did you know you can leverage ground construction for a post-frame building? Our QLYFT building system was invented in 2019. It works with buildings up to 100 ft wide with no length restrictions. This patented approach results in better safety and quality.

First, components like the roof, gutters and flashing are installed at waist level. Trusses are also slotted into place. Hydraulic cylinders raise the structure along with I-beams and scissor braces as support. Hinges along the wall sections allow them to move into position.

QLYFT eliminates much of the risk of working from heights or using ladders and lifts. Crews can focus on a task without needing to simultaneously concentrate on secure movements. During ground construction, nets are positioned along the sides and between trusses to safeguard against falls.

Inspections are also much easier to accomplish with QLYFT, adding transparency to the construction process. Weather concerns, especially from wind, are mitigated as well. This protects both workers and the construction schedule. ◆

Collaboration Leads to Lower-Carbon Concrete

Nano silica is forging a new highway to sustainable concrete. E5® Nano Silica is a class of proprietary products that provide a lower-carbon solution. These admixtures eliminate the need for traditional curing times by influencing the chemistry of cement and water.

E5 Incorporated has released multiple innovations through a strategic partnership with Nouryon, a global specialty chemicals company, and Carlyle, a global investment firm. These breakthroughs have been adopted in numerous applications, from DOT projects and civil structures to commercial buildings and residential developments. Simply put, E5 Nano Silica belongs in every yard of concrete.

E5 Internal Cure® delivers internal curing of concrete by controlling water evaporation within the mix. It increases the density of the concrete matrix, resulting in a highly durable surface that is resistant to abrasion and chemical attack even in heavy traffic areas and under freeze-thaw conditions. For every 100,000 sq ft poured, 880 lbs of CO_2 is eliminated.

E5 Liquid Fly Ash® is infused with Nouryon's nano silica. It works specifically to decrease air entrainment, efflorescence and permeability issues that are common with fly ash. The improved concrete has a consistent composition that is easy to pump, place and finish. It also enables 5–15% less cement use per pour. E5 Nano Silica products address diverse challenges, including ever-accelerating construction schedules, cement chemistry, water-cement ratios and the need for carbon reduction.

"We believe that sustainability and resilience could be two sides of the same coin," explains Carlyle's sustainability report, **Resilience: The Invisible Edge.** "Resilience is not just about bouncing back from challenges—it's about building the flexibility and foresight to proactively navigate uncertainty while seizing growth opportunities." ◆

By ensuring a proper cure, E5® Nano Silica substantially improves the durability and service life of concrete.

PHOTO COURTESY OF JOEL COOKSTON

Thomas Industrial Coatings, Inc. is a multi-certified industrial painting and coatings contractor dedicated to quality, safety, and efficiency. We take great pride in our work, and it shows on every job we do across the country.

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